

WHAT IS CLAIMED IS:

1. An information display apparatus comprising:
a display device configured to display a video;
a speech detection unit configured to detect
5 a playback state of a playback speech;
a closed caption generating unit configured to
generate a closed caption video comprising character
information associated with the playback speech; and
a closed caption control unit configured to
10 display the closed caption video on the display device
and to change display state of the closed caption video
depending upon the detected playback state.
2. The apparatus according to claim 1, wherein
the speech detection unit detects a sound volume of the
15 playback speech and inputs it to the closed caption
display control unit as the playback state, and the
closed caption display control unit changes the display
state when the sound volume of the playback speech is
not more than a given level.
- 20 3. The apparatus according to claim 1, wherein
the speech detection unit detects that the playback
speech is silent, and input it to the closed caption
display control unit as the playback state, and the
closed caption display control unit change the display
25 state when the playback state is a state that the
playback speech is silent.
4. The apparatus according to claim 3, which

includes a playback unit configured to playback a video and a speech from a recording medium and a playback control unit configured to control the playback state of the speech and a playback state of the video, the playback control unit changing the display state by making the playback speech to be silent when the playback state is a playback state other than a normal forward playback.

5. The apparatus according to claim 1, which includes an ambient noise detection unit configured to detect a noise level of an ambient noise, and wherein the speech detection unit detects a sound volume of the playback speech and input it to the closed caption display control unit as the playback state, and the closed caption display control unit changes the display state when the sound volume of the playback speech is not more than a playback reference level determined by the noise level.

6. The apparatus according to claim 1, wherein the closed caption display control unit includes a plurality of conditions concerning the playback state and determines satisfaction of the conditions in comparison with the playback state at the present moment, and the closed caption display control unit changes the display state of the character information when either of the conditions is satisfied or all of them fails to be satisfied, or when neither of the

condition is satisfied or all of them are satisfied.

7. The information display apparatus according to claim 1, which includes a speech selection unit configured to select a speech to be played back from a plurality of speeches including a main speech and a speech other than the main speech, the plurality of speech being associated the video, and wherein the closed caption display control unit changes the display state of the character information when the speech other than the main speech is selected.

8. The information display apparatus according to claim 1, which includes a video language selection unit configured to select a language of the video and a speech selection unit configured to select a speech to be played back from a plurality of speeches associated with the video, and the subtitles display control unit changes the display state of the character information when a language concerning the speech selected by the speech selection unit differs from the language of the speech of the video selected by the video language selection unit.

9. The apparatus according to claim 1, wherein the closed caption display control unit changes the display state to a display size larger than a normal size.

10. The apparatus according to claim 1, wherein when the closed caption generating unit extracts the

character information embedded in a television video
signal, generates an image of a to-be-displayed closed
caption based on the extracted character information,
and outputs a video signal embedding the image of the
5 closed caption.

11. The apparatus according to claim 1, wherein
when the closed caption generating unit generates an
image of a to-be-displayed closed caption based on the
characters information corresponded to the speech
10 information, and outputs a video signal embedding the
image of the closed caption.

12. An information display apparatus comprising:
a display device configured to display a video;
an ambient noise detection unit configured to
15 determine an ambient noise level other than a playback
speech referring to a playback speech signal;

a closed caption display unit configured to
display, on the display device, character information
associated with the playback speech; and

20 a closed caption display control unit configured
to change according to the detected noise level a
display state of the character information that is
displayed on the display device by the closed caption
display unit.

25 13. The apparatus according to claim 12, wherein
the closed caption display control unit changes the
display state when the ambient noise level is higher

than a given level.

14. The apparatus according to claim 12, wherein
the closed caption display control unit changes the
display state to a display size larger than a normal
5 size.

15. The apparatus according to claim 12, wherein
when the subtitles display unit displays the character
information on the display device, the closed caption
display control unit extracts the character information
10 embedded on a television video signal, generates an
image of a to-be-displayed closed caption based on the
extracted character information, and outputs a video
signal superimposing the image of the closed caption.

16. The apparatus according to claim 12, wherein
15 when the subtitles display unit displays the character
information on the display device, the closed caption
display control unit generates an image of a to-be-
displayed closed caption based on the characters
information corresponded to the speech information, and
20 outputs a video signal superimposing the image of the
closed caption.

17. An information display apparatus using
a storage medium storing a video and a speech,
comprising:

25 a playback unit configured to playback the video
and the speech from the storage medium;

a display device configured to display the

playback video;

a playback control unit configured to control
a playback state of the video and the speech that are
played back by the playback unit;

5 a closed caption display unit configured to
display, on the display device, character information
associated with the speech;

a closed caption display control unit configured
to change according to the playback state a display
10 state of the character information displayed on the
display device by the closed caption display unit.

18. The apparatus according to claim 17, wherein
the closed caption display control unit determines
whether a playback speed is an equal speed and changes
15 the display state of the character information when the
playback speed fails to be the equal speed.

19. The apparatus according to claim 17, wherein
the closed caption display control unit determines
whether a playback speed is in a given range and
20 changes the display state of the character information
when the playback speed fails to be in the given range.

20. The apparatus according to claim 17, wherein
the closed caption display control unit determines
whether a playback direction is a forward direction and
25 changes the display state of the character information
when the playback direction fails to be the forward
direction.

21. The apparatus according to claim 17, wherein the closed caption display control unit determines whether the playback state is a pause state and changes the display state of the character information when the playback state is the pause state.

22. The apparatus according to claim 17, wherein the closed caption display control unit changes the display state of the character information when the sound volume is not more than a given level.

23. The apparatus according to claim 17, which includes an ambient noise detection unit configured to detect a noise level of an ambient noise, and wherein the closed caption display control unit changes the display state of the character information when a sound volume of the playback speech is not more than a reference level determined according to the noise level.

24. The apparatus according to claim 17, wherein the closed caption display control unit includes a plurality of conditions concerning the playback state and determines satisfaction of the conditions in comparison with the playback state at the present moment, and the closed caption display control unit changes the display state of the character information when either of the conditions is satisfied or all of them fails to be satisfied, or when neither of the condition is satisfied or all of them are satisfied.

25. The information display apparatus according to claim 17, which includes a speech selection unit configured to select a speech to be played back from a plurality of speeches including a main speech and a speech other than the main speech, the plurality of speech being associated the video, and wherein the closed caption display control unit changes the display state of the character information when the speech other than the main speech is selected.

26. The information display apparatus according to claim 17, which includes a video language selection unit configured to select a language of the video and a speech selection unit configured to select a speech to be played back from a plurality of speeches associated with the video, and the subtitles display control unit changes the display state of the character information when a language concerning the speech selected by the speech selection unit differs from the language of the speech of the video selected by the video language selection unit.

27. The apparatus according to claim 17, wherein the closed caption display control unit changes the display state to a display size larger than a normal size.

28. The apparatus according to claim 17, wherein when the subtitles display unit displays the character information on the display device, the closed caption

display control unit extracts the character information embedded in a television video signal, generates an image of a to-be-displayed closed caption based on the extracted character information, and outputs a video signal-embedded the image of the closed caption.

29. The apparatus according to claim 17, wherein when the subtitles display unit displays the character information on the display device, the closed caption display control unit generates an image of a to-be-displayed closed caption based on the characters information corresponded to the speech information, and outputs a video signal superimposing the image of the closed caption.

30. An information display apparatus comprising:
a playback unit configured to playback a video and a speech;

a display device configured to display the video;
a subtitles display unit configured to generate character information associated with the video and the speech and display it on the display device;

a display selection unit configured to select a multi-screen display mode for displaying a plurality of videos on multi-screens or a single-screen display mode for displaying a single video on a single screen; and

a closed caption display control unit configured to change a display state of the character information

concerning each of the videos displayed on the multi-screens when the multi-screen display mode is selected.

31. The apparatus according to claim 30, which
5 includes a speech control unit configured to control the display selection unit to select one of the multi-screens and output a speech, and wherein the closed caption display control unit change the display state of the character information with respect to each
10 of the screens other than the one of the screens that is selected by the speech control unit.

32. The apparatus according to according to claim 30, wherein the closed caption display control unit changes the display state to a display size larger
15 than a normal size.

33. The apparatus according to claim 30, wherein
when the subtitles display unit displays the character
information on the display device, the closed caption display control unit extracts the character information
20 embedded in a television video signal, generates an image of a to-be-displayed closed caption based on the extracted character information, and outputs a video signal embedded the image of the closed caption.

34. The apparatus according to claim 30, wherein
25 when the subtitles display unit displays the character information on the display device, the closed caption display control unit generates an image of

a to-be-displayed closed caption based on the characters information corresponded to the speech information, and outputs a video signal superimposing the image of the closed caption.

5 35. An information display method comprising:
 generating a playback speech;
 detecting a playback state of the playback speech;
and

 changing a display state of character information
10 associated with the playback speech according to the
detected playback state.

 36. An information display method comprising:
 generating a playback speech;
 determining a noise level of an ambient noise
15 other than the playback speech referring to a playback
speech signal; and

 changing a display state of the character
information associated with the playback speech
according to the noise level.

20 37. An information display method comprising:
 playing back a video and a speech from a storage
medium;
 controlling a playback state of the video and the
speech; and

25 changing a display state of character information
associated with the video and the speech according to
the playback state.

38. An information display method comprising:

selecting a single-screen display mode or a multi-screen display mode;

5 playing back a video and a speech with respect to
a single screen on the single-screen display mode and
each of a plurality of screens on the multi-screen
display mode; and

 changing a display state of the character
information associated with the video and the speech
10 with respect to each of the screens when the multi-
screen display mode is selected.

39. A program stored in a computer readable medium
for displaying character information on a display
device, comprising:

15 means for instructing a computer to playback
a video and a speech from a recording medium;

 means for instructing the computer to change
a playback state of the video and the speech;

 means for instructing the computer to display
20 character information associated with the video and the
speech; and

 means for instructing the computer to change
a display state of the character information according
to the display state of the video and the speech.